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Environmental Advisory Council

1980-81 Annual Report

FOR THE YEAR ENDING JUNE 30, 1981

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Front Cover: View of the Big Muddy Valley from the St. Victor rock petroglyph site by H.T. Epp, Saskatchewan Environment.

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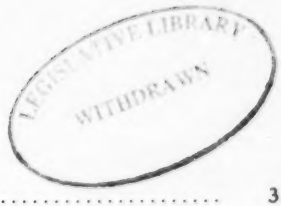

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Province of Saskatchewan
Environmental Advisory Council
1055 Park Street
Regina, Saskatchewan

The Honourable G. R. Bowerman,
Minister
Department of Environment

Dear Sir:

I have the honour to submit the eighth Annual Report of the Environmental Advisory Council.

The Council continues to believe that environmental issues are among those of most importance to the province of Saskatchewan. These issues are many in number and often exceedingly complex. Council, with its limited resources, has therefore tried to be selective and focus its attention on those matters referred to it by yourself and any other issues which might be positively effected by constructive comment.

Yours sincerely,

Dr. N.O. Nielsen,
Chairman
Environmental Advisory Council

101-07508/

Environmental Advisory Council

The Department of Environment Act provides for the formation of an Environmental Advisory Council. According to the Act, Council is to advise the Minister of the Department of Environment on environmental matters of concern to the people of Saskatchewan.

The formation and composition of the Environmental Advisory Council was announced on January 17, 1973.

The three primary tasks of the Council are: to review government policies and programs relating to the environment and report findings and recommendations to the Minister; to bring to the attention of the Minister problem areas which require government attention; and, to examine and provide advice on public involvement in any program of the government relating to the environment.

Six general meetings were held during the year at Regina, Saskatoon, and Cypress Hills Provincial Park along with a larger number of sub-committee sessions addressed to specific issues. Three Council members were replaced during the year.

The Report of the Key Lake Board of Inquiry was released in February 1981, outlining suggested terms and conditions for development of the proposed uranium mine-mill complex in northern Saskatchewan. The decision to proceed with the mine is of major significance in its own right. However, the manner in which this and other decisions with major environmental consequences are being reached is of equal and perhaps greater significance. The public involvement process in Saskatchewan continues to present problems. Council plans to re-examine the role of public participation in environmental decision making during the coming year.

A special tour of southwestern Saskatchewan in June 1981 provided Council with first hand information on recreational

and other potential impacts on this region's biophysical resources. Liaison activities were highlighted by the June 1981 Sixth Joint Meeting of Federal and Provincial Environmental Advisory Councils in Alberta. Meetings and correspondence with individuals and organizations provided Council with a further variety of issues.

Government Programs Review

Key Lake Board of Inquiry Report

The Key Lake Board of Inquiry was established in December 1979 to review a proposal by the Key Lake Mining Corporation (KLMC) for a uranium mining and milling operation in northern Saskatchewan. Public hearings commenced in February 1980 and concluded in October. The Board's report was released in February 1981.

The Board was required by its terms of reference to recommend how — not if — the project should proceed. In keeping with these terms of reference, the Board concluded that the measures proposed by KLMC were adequate to protect environmental quality and occupational health and safety and met the requirements of Canadian and Saskatchewan law. The Board gave particular attention to the socio-economic impact of the proposal on northern Saskatchewan and concentrated its recommendations in this area. Principal among these are recommendations for the establishment of technical training facilities in the north, establishment of a monitoring committee with representation from the employer, employees, and northern communities to review the development and operation of the mine, and active promotion of increased food production in the north. The Board also highlighted the lack of banking and financial facilities in the north, the need for affirmative action programs both with respect to hiring provisions and the apportionment of supply and service contracts for the mine,

and the importance of formulation of an overall development plan for the north. However, the Board stopped short of framing specific recommendations for these areas.

Council was not a formal participant in the hearings but instead monitored the proceedings and continued its policy of meeting periodically with Board staff to review the progress of the Inquiry. Then in March 1981 Council also met with Board Chairman R. W. Mitchell for a discussion of the Board's report.

The reaction to the Key Lake Board of Inquiry Report has been predictably varied, reflecting the disparity of opinion and controversy which dogged the Inquiry throughout the hearings process. Assessments of the Board's report have ranged all the way from a document which "clearly reflects northern opinions and concerns" to "a slick and fatuous piece of public relations." The reality is generally found somewhere between the extremes, and this would appear to be the case with the Key Lake Board of Inquiry Report.

The highlight of the Board's report is the section on northern Saskatchewan. More so than its predecessor, the Cluff Lake Board of Inquiry, the Key Lake Board was able to address the proposed project within the context of some of the more practical problems of day to day living in the north. There is at least an honest effort made to link more general theoretical considerations (e.g. the relative merits of a wage-based economy versus traditional resource use) to existing practical realities in the Northern Administration District (e.g. the obvious impediments to the wage-based economy option posed by the existence of only four banking facilities where a paycheque can reliably be cashed). The report gives the impression of a document intended to be written for northerners, not just about them. The Board correctly notes that uranium mines are not a magic solution to unemployment and under-development in the north, and emphasizes that other sectors including traditional land uses need equal if

not greater attention. Also, the Board concludes that a majority of northerners view the proposed mines with guarded optimism; i.e. as potentially positive if the majority of benefits accrue to the north. The latter condition has yet to be conclusively demonstrated by existing mining operations.

It should be noted that a number of the Key Lake Board's recommendations and conclusions respecting northern Saskatchewan are identical or similar to those reached three years earlier by the Cluff Lake Board. The Key Lake Board reports significant disenchantment among the northerners with the way in which the Cluff Lake project is unfolding. Specifically, the establishment of training facilities and affirmative action programs for the Cluff Lake mine have not met northerners' expectations. Also, there continues to be strong support in the north for the Northern Development Board and uranium royalty sharing scheme recommended by the Cluff Lake Board but yet to be implemented or acted upon in a tangible way.

It is recognized that a recommendation of a board of inquiry does not have the force of law or any other form of regulatory obligation. Nevertheless, from Council's perspective a failure to act on recommendations and/or provide a rationale for alternate courses of action invariably raises legitimate doubts about the utility of the inquiry process. Two boards of inquiry have now reached essentially the same conclusions in several critical areas pertaining to northern development. The onus is now squarely upon the Government to either act on these recommendations or produce credible alternatives.

In terms of an overall assessment, notwithstanding some germane commentary on northern Saskatchewan the Key Lake Board of Inquiry Report is a disappointing document. Its major shortcoming is a significant break with tradition in the sense that the Key Lake Board did not do what other

boards have done as a matter of course: make recommendations. The section on Environmental Impact does not contain one single Board recommendation. There is, instead, a general requirement posed in the report's Introduction "recommending that KLMC follow the proposals and procedures which they described to us in the Environmental Impact Statement (EIS) and their presentations as those procedures and proposals may be modified by the contents of this report. We expect KLMC to live up to and perform what it has said it would do." This approach is questionable at best and provides little guidance to government for subsequent regulation of the project or to the public for coming to grips with what needs to be done. Given that the EIS is not frozen in time but subject to updating and modification, and given that the eventual surface lease will not be a verbatim replica of the EIS, for a member of the general public some considerable diligence is required simply to ascertain what precisely the Board has given its blessing to. To a marginally lesser extent, the section on Worker and Public Health and Safety suffers from the same deficiency. Similarly, the economics of the project are cursorily dealt with by summarizing submissions from KLMC and Saskatchewan Mineral Resources with no evidence of independent Board analysis.

The Key Lake mine is now for all intents and purposes an accomplished fact. There will, however, be other proposals advanced. The most recent formal estimate places Saskatchewan's proven reserves of $U_3 O_8$ at 332 million lbs, with a further 100 million lbs of probable reserves. Much will of course depend on international market conditions and the extent of the present erosion in price. This notwithstanding, the contingency of further mine proposals should be planned for. The Key Lake Board of Inquiry Report can therefore be instructive in terms of the more thorny problem areas requiring attention which it brings to the fore, both intentionally and by omission. These include low level radiation, adequacy of baseline data, tailings management, certain

aspects of monitoring, and decommissioning; all areas where further effort needs to be directed. The establishment of Saskatchewan Environment's Mines Waste Research Secretariat and release of the June 1981 Woods Report (A Review of Present Research, Research Needs, and Research Capabilities Related to the Uranium Mining and Milling Industry in Saskatchewan) represent significant positive steps in this regard.

With respect to the hearings process, right from the beginning the Board was confronted with the problems of their limited mandate, adverse public reaction to the terms of reference, and the subsequent boycott by the environmental groups. The pros and cons continue to be debated, for the most part in counter-productive fashion. There is general consensus that the public involvement process did not function effectively for the Key Lake hearings. However, the hearings process will not be improved by continued mutual recrimination.

Several themes and possible courses of action have emerged from the assorted Key Lake post mortems. Uranium development remains a volatile issue in Saskatchewan, an issue which presents its own unique problems in terms of developing effective public involvement programs. Of these, three require particular attention.

First, it seems clear that the Government of Saskatchewan has no intentions of assessing the broader implications of uranium development each time a new mine come up for review. It is, however, precisely these broader implications which the environmental groups view as the most urgent and wish to address. This, plus the absence of the "no go" option in the terms of reference, was primarily responsible for the Key Lake boycott. Uranium-related hearings cannot be successful without input from this portion of the citizenry. It is therefore imperative that there be some ordered examination and discussion of how to provide environmental

groups with sufficient reasons to opt back in to the hearings process. A positive first step would be reinstating the no-go option in any future terms of reference.

Second, the Key Lake Board notes that "uranium and its effects are not understood. This probably applies generally across the country, but we know that it certainly applies to northern Saskatchewan." The Board correctly emphasizes that public information/education continues to warrant major priority, but notes with some despair the difficulty in assembling an acceptable information package when the positions on the central issues have become so inflexible. This particular dilemma will inevitably occur whenever fact and fantasy cease to be distinguished on empirical grounds and instead come to reside solely in the ideological eye of the beholder.

Continued dissemination of one-sided information only further complicates an already difficult task. None of the principals — the industry, the interest groups, and the Government of Saskatchewan — can claim to be entirely blameless. The time is ripe to initiate a joint effort geared to identifying common informational ground; i.e. solicit input from the industry (e.g. Saskatchewan Mining Association), interest groups (e.g. Saskatchewan Environmental Society), and government (e.g. Saskatchewan Environment, Saskatchewan Mineral Resources) with the objective of developing an information package acceptable to all parties. On those items for which there is no consensus the package need do no more than present all points of view concurrently and allow the reader to decide. This is an imperfect solution; arguably no solution at all, but it seems preferable to the present bombardment of the body public with mutually exclusive positions each claiming objective accuracy.

A third and final point pertains to the location of future hearings. The Cluff Lake Board of Inquiry held most of its hearings in the southern portion of the province and was

criticized for not being sufficiently accessible to the people who would be most directly affected by the project — northerners. The Key Lake Board concentrated its hearings in the north and was accused of attempting to hide from southern interest groups. Neither criticism is completely legitimate. There are advantages and disadvantages to both approaches and both are acceptable so long as sufficient funding is made available to interest groups that they can participate without undue hardship. This condition is an important one, however. The location of a given hearing must not be allowed to unduly prejudice who can and cannot take part. In fairness, it should also be noted that Saskatchewan is one of only a few provinces which make this kind of funding assistance available. Saskatchewan Environment is to be commended in this regard.

The subject of uranium development and its potential implications was first tackled by Council in its 1976-77 Annual Report when proposals for the Cluff Lake mine and the Warman refinery began to surface. A good deal has transpired in the interim, some of which was positive (e.g. establishment of Mines Pollution Control Branch and Mines Waste Research Secretariat, transfer of regulatory responsibility for uranium from Saskatchewan Mineral Resources to Saskatchewan Environment) and some discouraging; specifically, the ongoing trials and tribulations of uranium-related hearings. Council has no instant solution to these problems. All that can be offered is a reaffirmation of the importance of public input to these kinds of decisions. For all of its shortcomings, an acrimonious public debate is surely preferable to none at all.

Public Participation in Environmental Decision Making

One of Council's specified responsibilities is to examine and provide advice on public involvement in any program of the government relating to the environment. Towards this end Council has commented on matters of procedure for

various public inquiries, made several formal submissions respecting possible means of improvement, and regularly summarized its concerns in EAC Annual Reports.

However, it seems more and more that a simple fine-tuning of the public involvement process may not be sufficient. The problems which have come to the fore over the past several years are more fundamental in nature and go to the core of the public involvement process. The cornerstones of the process are Saskatchewan Environment's Environmental Impact Assessment (EIA) and Review Process along with boards of inquiry appointed as the need arises to address particular project proposals. Significant problems surround both.

Although it is not as high profile as the public hearings approach, the EIA process affords a far more regular opportunity for public input on a wide range of specific project proposals. However, it is an avenue which to this point has not been heavily travelled. Summaries of all EIAs are mailed to interest groups and individuals with the full EIA available for perusal through the library system. Availability of the EIAs is advertised via the print media. More recently, as of last year public notice is given when a proponent is required to prepare an EIA (as opposed to when it becomes available for review) so that there is more lead time for the public to marshall their concerns and provide commentary. This system has functioned, but not in a notably effective manner. To date the direct mail approach has produced a fairly modest level of input. In all probability the sheer volume of information put forward for review during the course of a given year is in a large part responsible. Also, this approach requires an abundance of "model citizens"; i.e. a well informed public prepared and able to commit significant time and effort to the review process.

Alternative methods are not readily apparent. A different approach was utilized by Saskatchewan Environment to

solicit input on the EIA for the Collins Bay proposal. A public involvement coordinator was hired to conduct a series of information meetings where public commentary could be put forward. This produced mixed results at best. The exercise could be considered successful in the sense that a significant amount of public commentary on the proposal was received, in all probability more so than would have been the case had the normal route been followed. However, rightly or wrongly, this approach was also perceived in some quarters as simply a none too subtle attempt to fast-track approval for the proposal and perhaps pre-empt a more extended inquiry. The principal problem is how to increase public input to the EIA process. The companion problems are how to walk the fine line between informing and persuading and how to avoid foreclosing debate if the information meeting alternative is to be further pursued.

A more general problem is simply that much more is falling under the scope of the EIA process that was originally intended. The initial focus for the Environmental Impact Assessment Policy and Guidelines and the subsequent Environmental Assessment Act seemed sufficiently clear cut; i.e. environmental concerns. However, this has come to encompass a whole range of socio-economic considerations as well so that the EIA process now routinely includes matters such as alternate models for economic development, demography, job creation potential, lifestyles, individual community dynamics, assorted anthropological issues, and more. These are all obviously important issues well deserving of extensive public debate. The nagging question is whether they are appropriate concerns of the Department of Environment. For the immediate future these kinds of concerns will in all probability continue to be fed in to the EIA process for the simple reason that it represents one of the more regular and widely accessible forums where commentary can be offered.

Most of the problems encountered by the public hearings process are by now familiar. The setting tends to be formal and often adversarial which may inhibit participation and discourage consensus. As a general rule, average citizens are notable by their absence and submissions are instead characterized by relatively hardened positions, both pro and con. Overall participation rates have been good for some boards (e.g. Churchill River Board of Inquiry), significantly less so for others (e.g. Key Lake Board of Inquiry, arguably the Cluff Lake Board of Inquiry as well). Terms of reference for boards are not always as concise as they should be (e.g. Key Lake Board of Inquiry). It is frequently suggested that hearings board appointments should be somehow further removed from direct government appointments, perhaps via creation of a permanent "pool" of prospective board members, but no workable model has yet been put forward. Explicit guidelines need to be developed distinguishing legitimate data gathering by a proponent from actual project development. Public information/education efforts are commonly criticized as insufficient and much of the information which is distributed is viewed as one sided.

Both the EIA process and public hearings are structured in such a way that although the proponent's role is clear — to present the case for the project — there is no agency or individual formally responsible for presenting the case for the environment in the same fashion. Saskatchewan Environment's role is that of judge and arbiter until such time as the public component of the process has run its course. The process which Environment administers therefore on occasion becomes a stage for dissemination of information which the Department may have serious reservations about.

Adequacy of baseline data is also an ongoing problem for both the EIA and public hearings process. Anyone who has been confronted with the awesome bulk of a three volume impact assessment would doubtless question the assertion

that the information provided is insufficient. However, the fact remains that many assessments are primarily of an overview nature, are geared to relatively short term project timetables rather than biological cycles, and are not as thorough as they should be. Actual bona fide research is often lacking, for much of the data is simply culled from existing information and presented in warmed over fashion. Field inspections tend to be limited, particularly when the assessment is done by an out-of-province consultant. The private consultant field ranks alongside computer technology and junk food in terms of rate of growth for an industry. However, unlike the latter two there are no formal standards which clearly define what represents an acceptable product. This is determined primarily by the judgement of the contractor, who may or may not have sufficient time and/or appropriate academic credentials to properly review the work.

The primary problem surrounding baseline data is a familiar one and does not lend itself to a quick solution. A proponent for a given project is reluctant to make major expenditures on baseline data gathering until there is some assurance that the project will proceed. If the proponent will not conduct the data gathering, then who? If the data are not procured until such time as a project has been approved, on what basis is the go/no go decision to be made and how reliable can these decisions be?

Another frequently voiced criticism of the EIA and hearings process is that in focussing on project-by-project reviews the forest may be obscured by the trees. Is it appropriate to review and solicit commentary on a single road without considering long range transportation plans and options which could significantly influence the need for and desirability of a given proposal? Similarly with mines, power plants, and so on. Also, environmental impacts may be dynamic and exponential as well as simply additive. A doubling of air

pollutant emissions, for example, may increase environmental impact by significantly more than a factor of two. It is therefore questionable whether the project-by-project approach is sufficiently sensitive to cumulative environmental impacts and long term planning needs. Should more general hearings (e.g. a long term energy strategy) not precede site-specific ones (e.g. an individual power plant)? Should the scope of select EIAs not be similarly broadened, addressing, for example, the potash industry in Saskatchewan as opposed to a particular mine proposal?

The final and most significant problem area pertains to the purpose of public involvement programs and their role in the process of environmental decision making. There appears to be a growing credibility gap surrounding the public involvement process which must be addressed. Reports of boards of inquiry are not always acted upon, and when major substantive recommendations are not followed this runs the risk of generating significant public disillusionment. The principal question is this: is a recommendation from a given board of inquiry in any way binding, or does it simply represent an elaborate public opinion sample which elected representatives can legitimately ignore, albeit at their own peril in the electoral sense? The credibility gap stems from precisely this question, for public expectations of the public involvement process do not appear to be consistent with those of government. The public tends to view board of inquiry results as at the very least obligatory if not binding. Government tends to view them as important, but only one part of the larger decision making process. When widely held perceptions and expectations no longer match reality credibility gaps occur. If they persist the entire process is jeopardized, for no significant expenditure of public effort should be anticipated if it comes to represent nothing more than a means of registering frustrations in a socially acceptable way.

Council discussed these and other issues at considerable length, although no specific suggestions were put forward during the reporting year. There were a number of issues where the obvious could have been restated, but it was Council's consensus that a more in depth re-evaluation of the public involvement process was in order. Towards this end, in March 1981 Council commissioned a study on the broad theme of the role of public participation in environmental decision making. Some of the specific study objectives include a review of: a) the past and present role of public involvement in the decision making process; b) statutory requirements for public participation in the decision making process; c) the adequacy of the present public participation process; d) the adequacy of the process for environmental decision making particularly as it pertains to long range planning needs. It is expected the report will be available for distribution in the 1982-83 fiscal year.

Grasslands National Park

Establishment of a Grasslands National Park in south-western Saskatchewan was first suggested by the Saskatchewan Natural History Society in 1957. The first notable movement on the suggestion came in 1975 with the signing of a joint Federal-Provincial Memorandum of Intent which essentially represented an agreement between the two governments to explore the feasibility of establishing such a park. Towards this end a public hearings board was appointed by the Government of Saskatchewan in 1975 to determine whether or not there was widespread support for a Grasslands National Park.

The Board's report was released in September 1976. In keeping with its terms of reference, the Board reported "that a majority of the people in Saskatchewan support the proposal for establishing a Grasslands National Park in the Val Marie-Killdeer section of the province" and recommended

that the governments of Canada and Saskatchewan enter into an agreement "to set aside a suitable tract, or tracts, of land between Killdeer and Val Marie for the purpose of a Grasslands National Park." Then in June 1977 the federal and provincial governments announced that, although a final agreement had not yet been ironed out, it had been agreed that the park would proceed subject to certain conditions respecting procedures for implementation and delineation of the area's oil and gas potential.

A formal agreement to establish a Grasslands National Park was finally signed on June 19, 1981 in Regina. This will be Canada's twenty-ninth national park and Saskatchewan's second. It is intended to encompass one of the largest and best remaining portions of relatively unmodified grasslands left on the North American continent.

Progress of any kind is usually measured in small steps, so the June 1981 agreement could be termed a hesitant step in the right direction insofar as it formally guarantees that at some point in the future a national park will be in place in southwestern Saskatchewan. However, in terms of an overall evaluation the June 1981 agreement represents a major disappointment.

It had been specified from the outset (1975 Memorandum of Intent) that provision would be made for exploration and possible development of oil and gas in the area. However, the implications were not totally apparent until the release of the June 1981 agreement.

Two separate complementary agreements were signed on June 19; one an "Agreement for the Establishment of a Grasslands National Park" and the second an "Oil and Gas Exploration Agreement". Taken together the agreements formalize arrangements for a cost-shared five year oil and gas exploration program within the park areas and subsequent development of any commercial reserves which may be

discovered. The Oil and Gas Exploration Agreement (Schedule D) sets as a prime objective preservation of "the prairie grasslands environment within the proposed park in as unaltered a state as possible" and also specifies that the exploration program is to be carried out "only after identification of and the development of protection measures for the unique representative land systems, currently known archaeological sites and prime wildlife habitat in the proposed Grasslands National Park lands". These provisions notwithstanding, for the near term future it is difficult to see how the park can be more than a modest shell of the initial (1975) proposal or how it can even realistically conform to the objectives for national parks specified in the National Parks Act and related policy.

It is important to distinguish between the objectives and the actual requirements spelled out in the 1981 agreement. The objective is establishment of a 350 square mile national park at some point in the future. The specific requirements are significantly less impressive. Within five years of the date of approval of the exploration program by the appropriate federal and provincial environmental agencies, the province of Saskatchewan must designate at least 100 square miles for park purposes within the proposed park area. The longer term requirement reads as follows: "Subject to the results of the oil and gas exploration and subsequent exploitation program within the park areas, Saskatchewan shall use its best efforts to identify 350 square miles for park purposes within 30 years from the date of signing of this agreement." This arguably is no requirement at all, for it stipulates only that the province "use its best efforts" to designate 350 square miles and does not specify what the long term (30 year) minimum area of the park will be. With an unintended touch of irony, the agreement does go on to specify that the park shall not "exceed" 350 square miles.

In summary, within five years there will be a national park in southwestern Saskatchewan at least 100 square miles in size. Within thirty years the park will be somewhere between 100-350 square miles in size. Its final size and boundaries are all contingent upon the results of the oil and gas exploration program. For this reason it is difficult to marshall any real enthusiasm for the park agreement, for the Oil and Gas Exploration Agreement clearly has precedence in terms of land use priorities in the area.

The National Parks Act states, as its general purpose, that national parks are "dedicated to the people of Canada for their benefit, education and enjoyment . . . and shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations." A 1979 Parks Canada Policy document is more to the point: "Although a variety of landscapes is now represented in Canada's national park system, certain elements are missing; for example, arctic and sub-arctic natural regions and prairie grassland. . . . Decisive action is required while the opportunities exist if the heritage of the past is to be passed on to the future. The identification and protection of our important natural heritage areas cannot await or accommodate the advance of competing land uses." The 1981 Grasslands National Park Agreement simply does not appear to be consistent with either the general intent of the National Parks Act or the more specific Parks Canada Policy.

Residents in the proposed park area are understandably frustrated. The 1976 Hearings Board emphasized that "It is imperative an early announcement be made as to whether or not a park is to be established. . . . Land transactions, ranch and farm management decisions are being post-poned pending park decisions. These are matters of financial and emotional concern affecting both local communities and families." The 1981 agreement has done little to alleviate these concerns. Some land within the proposed park area was subsequently

broken simply to register dissatisfaction with the manner in which events were unfolding.

Viewed as a case study in environmental decision making, the Grasslands National Park proposal clearly leaves a good deal to be desired. Also, if the 1981 agreement is an accurate representation of land use priorities then this too is cause for genuine concern from an environmental perspective. Insofar as conventional resource development seems to regularly prevail in any conflict with recreation/preservation oriented initiatives, there may well be merit in examining means for developing an expanded role for the Department of Environment in arbitrating and resolving these kinds of disputes in the future.

Cypress Hills Provincial Park

In June 1981 Council was provided with a conceptual plan prepared by the Department of Tourism and Renewable Resources (DTRR) for a proposed three year capital development program for the Centre Block in Cypess Hills Provincial Park. The proposed program included tentative plans for new accommodation facilities, a new swimming pool, improvements to the ski area, improvements to the road system and parking lots, and a new ski lodge. The initial conceptual plan (dated April 1981) also included plans for a new eighteen hole irrigated grass green golf course and development of a water source to service the course, although this was subsequently deferred due to water supply considerations. The overall stated objective was to transform the park from essentially a summertime operation to a year-round destination resort. The proposal was presented as being consistent with DTRR's goal "to increase the quality and quantity of recreation opportunities to Saskatchewan residents."

Council held one of its 1980-81 meetings in Cypress Hills Provincial Park (Centre Block) as part of a tour of south-western Saskatchewan in June 1981 which included stops at

the Prairie Wildlife Centre in Webb, Fort Walsh, and the proposed Grasslands National Park area. Council was also able to meet with the Park Superintendent at Cypress Hills Provincial Park for a discussion of the Cypress proposal. On the basis of these meetings Council subsequently forwarded a summary of its concerns and conclusions to the Minister of Environment.

Council had four principal reservations with respect to the proposal. First, the April 1981 document suggested that, insofar as DTRR had outlined a fairly extensive study program to assess the social and environmental impacts, this would be sufficient in terms of "achieving the objectives and criteria of an Environmental Impact Assessment defined under the Environmental Assessment Act and Guidelines" and therefore "formalization of the process by the Environmental Assessment Secretariat may not be required." Council questioned this rationale, pointing out that the project proposal clearly seemed to fall within the definition of "development" specified in the Environmental Assessment Act (Saskatchewan Environment) and should therefore be subject to detailed assessment in accordance with the Act and Guidelines. Council suggested that the proponent (DTRR) had perhaps confused study objectives with the overall objectives of the impact assessment process and emphasized that the proposal should not be exempted from detailed assessment, nor should the assessment process be left in the hands of DTRR.

Second, public hearings were held in 1977 to consider future directions Cypress Hills Provincial Park should take. The results of these hearings indicated a clear preference for maintaining the park in a relatively rustic state. The April 1981 planning document notes as a problem which can be anticipated with the present proposal the "conflicts with the 1977 Public Hearing recommendations." More recent user surveys reportedly show a desire for more modern accommodations and facilities. Nevertheless, the disparity

between the 1977 hearing results and the 1981 proposal again raises the question of what role public participation is intended to play in the decision making process.

Third, there are regional implications to consider. Some of the other existing and potential recreation sites in the vicinity include the Cypress Lake Recreational Site, Maple Creek Trans-Canada Campground, Pine Cree Regional Park, the Great Sand Hills, the proposed Grasslands National Park, and two IBP candidate sites in the West Block of Cypress Hills Provincial Park. There have also been reports that Highway 13 may be upgraded and designated the "Red Coat Highway" to further promote tourism in southwestern Saskatchewan.

It was recognized as early as 1975 (Memorandum of Intent for the Proposed Grasslands National Park) that there was merit in development of a regional tourism and recreation plan for southwestern Saskatchewan. The report of the 1976 Hearings Board on the Proposed Grasslands National Park emphasized that this "requires immediate action because a joint tourist and recreational plan for all of southwestern Saskatchewan is of vital necessity." Five years later, the 1981 Grasslands National Park Agreement offers only a noncommittal option whereby "Canada may enter into an agreement or other arrangement with Saskatchewan" to develop a regional plan. There is simply no evidence of the necessary regional planning being done. Council attempted to emphasize that it is within this broader framework that proposals such as the one for Cypress Hills Provincial Park should be publicly evaluated and discussed.

Council's fourth and final point pertained to overall parks policy. Cypress Hills Provincial Park encompasses a unique biophysical landscape which is particularly sensitive to any form of development. Its preservation will not be furthered by philosophy which equates "improvement" of the provincial park system primarily with expansion of capacity for

intensive recreational activity at the expense of other specified objectives for the park system.

The principal question is whether Cypress Hills Provincial Park with its unique attributes should become simply a park like the others in southern Saskatchewan with the emphasis on intensive recreation, or whether a preservation-oriented approach which would maintain the park's present rustic character should be pursued. The Provincial Parks, Protected Areas, Recreation Sites and Antiquities Act (DTRR) includes among its objectives for the provincial park system: a) "propagation, protection and preservation of wild animal life and wild vegetation" b) "protection and preservation of objects of archaeological, ethnological, geological, historical, paleontological, or other scientific interest." More pointedly, a 1979 report prepared for DTRR recommends that "a balanced complete system of parks and protected areas is needed to preserve representative as well as unique and outstanding examples of all natural regions and important natural history themes". The report identifies thirty natural regions in Saskatchewan and notes that fifteen of these are not yet represented via park or protected area. There is therefore clearly a need to expand and improve the provincial parks system. However, from Council's perspective it is distinctly questionable whether the Cypress proposal is the kind of improvement to which priority should be given.

General

The report of the Rapid River Board of Inquiry was released in September 1980. The Board recommended that the Saskatchewan Power Corporation's (SPC) proposed one megawatt hydroelectric plant on the Rapid River not proceed. The Minister for Saskatchewan Environment subsequently ruled (November 1980) that the project would not be permitted to proceed, in accordance with the Board recommendation. Council was in agreement with the Board recommendation and subsequent Departmental decision,

particularly since the proposed plant would have been within the boundaries of Lac La Ronge Provincial Park. However, Council also strongly endorses the Board recommendation for further investigation into the feasibility of small scale (low head) hydro plants in the north as an alternative to the two or three hundred megawatt variety. The important thing is that the rejection of the Rapid River proposal does not come to represent a blanket rejection of low head hydro in the north.

In December 1980 Council was invited to participate in a Technical Review Panel meeting organized by the consultant preparing the environmental impact assessment for SPC's proposed northern grid system. The initial proposal called for construction of roughly 1,400 kilometres of transmission lines to service seventeen northern communities and several existing and proposed mine sites. Council subsequently forwarded its impressions of the meeting and reservations respecting the proposal to the Minister. Council noted that the actual meeting represented a positive step; i.e. soliciting commentary on an EIA while it is still in progress to evaluate study objectives and priorities. Council voiced reservations respecting possible use of the chemical Tordon for vegetation control along the right of way, questioned several of the proposed routing alternatives, and registered particular concern with the relatively modest data base for the EIA at the time of the meeting. The proposal has since been revised and a feasibility study is now scheduled for completion in spring 1982.

Two other major energy-related proposals were under consideration at the end of the reporting year: the proposed Western Power Grid and Generation 2000. The proposed grid would entail 1,700 kilometres of transmission lines enabling export of hydroelectric power from Manitoba to Saskatchewan and Alberta over a thirty-five year period. In addition to the environmental impact of a major transmission line, from Council's perspective there is the longer term

consideration of whether integrating the provincial grid systems may not enhance the prospects of nuclear power generation in the prairie provinces at some point in the long term future. A major stumbling block to this point has been that, given the small (in relative terms) base loads of the individual provinces, a nuclear power plant would represent too large a proportion of total base load to be realistically integrated. In simpler terms, for any of the individual provinces it would run the risk of placing too many megawatts in one basket. Integrating the base loads of the prairie provinces renders this less problematic. Council is not aware of any firm plans or proposals for nuclear power generation on the prairies at this point in time. It should simply be noted that the proposed Western Power Grid, if implemented, could remove a major impediment.

The Saskatchewan Power Corporation's Generation 2000 program is an attempt to develop a long term strategy whereby provincial electrical energy requirements to the end of the century can be met. It is projected that installed generating capacity may have to increase from the present 2,059 megawatts (MW) to 3,600 MW by 1990 and 4,700 MW by the year 2000. Some of the options under consideration for the long term include hydro sites at Choiceland and The Forks, coal-fired thermal plants at Regina, Wood River, and Lake Diefenbaker, the addition of two more units to the existing Poplar River plant, and development of coal deposits in the Rockglen-Fife Lake area to be transported via rail or slurry pipeline to a generation site. For the near term SPC estimates that at least one more thermal or hydroelectric plant will be required by 1987, although the eventual decision on the proposed Western Power Grid could significantly influence both near and long term requirements. The options which are under active consideration for development by 1987 are Lake Diefenbaker, Wood River, The Forks, Choiceland, and the Western Power Grid.

The objective of Generation 2000 represents an improvement over the project-by-project approach. However, the manner in which it has been pursued to this point leaves something to be desired. Although there has been a series of information meetings in various communities to discuss the options for development by 1987, it does not appear to be widely appreciated that this exercise is part of a larger process geared to defining a longer term electrical strategy to the year 2000. This objective has been largely obscured by the at times heated debate on issues surrounding the various 1987 options, one of which (Wood River) has turned out to be particularly controversial. This debate could perhaps be improved, first, by SPC clarifying its long term objectives to the public and, second, by broadening the scope of the debate to allow for wider based public input. Also, Saskatchewan's electrical energy requirements represent only one component of total provincial energy requirements and can be more intelligently discussed when its place within the whole (long term provincial energy requirements) is clearly laid out.

In August 1980 Council was advised of a study in progress for preparation of a master plan for Nipawin Provincial Park. The basic objective of the plan will be to specify the purposes for which the park is to be used and define means of achieving them. Also, some changes to the park boundaries are proposed. It appears the proposed plan will continue to be predicated on the multi-use concept, and this as a rule represents an impediment to the preservation-oriented objectives for a given recreation site.

In October 1980 Council was provided with the Draft Uranium Mining Pollution Control Regulations (Saskatchewan Environment) for review and comment. Council forwarded its own review in December, raising questions respecting jurisdiction, imprecise terminology, penalty provisions, design and construction requirements,

reclamation and abandonment procedures, and monitoring requirements. Council also solicited commentary on the Draft Regulations from assorted university personnel in Saskatchewan as well as Dr. David Bates, University of British Columbia, and Chairman of the B.C. Royal Commission of Inquiry into Uranium Mining. In addition, in January 1981 Council arranged a short meeting between Dr. Bates an EAC sub-committee, and Department personnel for discussion of the Draft Regulations. A compendium of this commentary and summary of the meeting was forwarded to the Minister in February 1981.

The Draft Regulations represent a major step towards development of a comprehensive regulatory framework for the uranium industry in Saskatchewan. Given the nature of the industry — more specifically, long term considerations attendant to abandonment, decommissioning, and monitoring — the eventual final version of the regulations must pay particular attention to long term requirements for environmental protection. It is therefore imperative that they continue to be predicated on the basis of long term environmental considerations and are not in any way compromised as a result of the vagaries of present market conditions. The regulatory task facing Saskatchewan Environment for mitigation of environmental impacts from existing and committed mines remains the same; that is, it is quite independent of and does not rise or fall with the price of uranium.

In November 1980 Council was provided with copies of Environment Canada's draft policy on Public Consultation and Information Availability for review and comment. Council prepared and submitted a short brief at a November 26 meeting in Saskatoon sponsored by Environment Canada to receive public input on the draft policy. Several major points emerged from the submissions and subsequent discussions at the meeting. Environment Canada indicated

growing concern with the increasingly emotional nature of many hearings to the detriment of a more objective review process. Also, Environment Canada's draft policy (and the assessment and review process) is primarily oriented towards organizations and interest groups. More needs to be done to encourage participation by the ever elusive average citizen.

In June 1981 Council was advised of an EIA in progress on the proposed Stony Rapids and Black Lake Community and Resource Access Winter Road in northern Saskatchewan. A progress report on the EIA was provided by the consultant and Council was invited to forward suggestions respecting potential problem areas which should be encompassed by the study. Council urged particular attention to identification of any potential impacts construction of the road could have on the Beverly Caribou Herd which has experienced a serious decline over the past decade (from 210,000 animals in 1971 to an estimated 94,000 in 1980). Council also commended the consultant on their approach to the EIA; i.e. soliciting input on the actual study objectives and making interim progress reports available well in advance of release of the EIA for public review.

Also in June, Council requested information from the Minister for Health and Welfare Canada respecting testing procedures and control mechanisms for registration of chemicals. This was in response to earlier revelations which came to light respecting falsification of test results by the firm Industrial Biotest Laboratories (IBT) on 106 chemicals registered for use in Canada. Twenty-eight of these are of particular concern to Saskatchewan. Several aspects of the regulatory process are especially disturbing. There appears to be a lack of resources to enable proper appraisal of contract research results (such as the IBT tests) which are used as the basis for chemical registration. Equally disturbing is the fact that test information submitted under the Pest Control Products Act (Agriculture Canada) can be classified

as a trade secret and kept confidential, both from the public and other levels of government. There is need for a wide ranging review of agricultural chemical use and regulatory responsibilities in Canada.

Citizen Concerns

Athabasca Sand Dunes

In December 1980 Council received a request for an update on the status of a proposed all weather road to the south shore of Lake Athabasca. Concerns were expressed respecting the potential affects such a road could have on the Athabasca Sand Dunes.

At present there is an all weather road from La Loche to Cluff Lake (completed in 1979) and a winter road from Cluff Lake to the south shore of Lake Athabasca, with the northern termimus just west of the William River. The present winter road does not enter the Athabasca Sand Dunes area but skirts its western edge. Although the thinking at one time seemed to be that the Cluff Lake — Lake Athabasca winter road would be upgraded to all weather status in relatively short order, this has never materialized. As of June 30, 1981 no formal proposal for an all weather road has been submitted to the Department of Environment (Environmental Assessment Secretariat) for review. If a proposal is ever submitted, it seems safe to expect that a detailed environmental impact assessment would be required given the sensitive nature of the dunes area.

Unique has come to be something of an overworked and loosely used word in describing particular regions or biophysical features. However, it can be applied without hesitation to the Athabasca Sand Dunes because there is nothing else like them anywhere in Saskatchewan. Northward flowing streams carrying sand from the underlying sandstone bedrock have formed extensive deltaic deposits.

This deltaic sand in turn formed extensive beaches which are also reworked by the wind to form what is today one of the largest active dune fields in continental Canada. Vegetation is a curious mix of sandhill complexes interspersed with jack pine forest, black spruce-larch communities, and muskeg bog. Characteristic wildlife includes moose, black bear, snowshoe hare, spruce grouse, gray wolf, and red fox.

The net overall effect is genuinely unique — a desert landscape in a coniferous forest zone just south of the 60th parallel which hosts ten known endemic species of herbs, shrubs, and grasses. In June 1981 two of these (Turnor's willow and the thrift plant) were added to the official Canadian list of threatened species by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC defines a threatened species as one that is likely to become endangered if the factors causing its vulnerability are not reversed. At the time (June 1981) these factors were considered to be the possibility of construction of the all weather road as well as possible mineral exploration in the vicinity.

There has been a variety of preservation-oriented initiatives for the Athabasca Sand Dunes dating back as far as 1970, but none have yet come to any kind of fruition. In 1970 the dunes were recommended as a candidate ecological reserve as part of the International Biological Program. In the mid-seventies there was considerable interest in establishing a provincial park. More recently, the preference has shifted back to the ecological reserve option and as of May 1981 a portion of the dunes area was one of eleven candidate sites for which technical reports were being prepared by Saskatchewan Environment, the objective being designation as an ecological reserve within the near term future. The dunes are also being examined as part of the MacKenzie River Basin Task Force Study which has its objective compilation of comprehensive baseline data on water and related resources in the MacKenzie River Basin.

It is imperative that some form of permanent formal protection for the Athabasca Sand Dunes be implemented as soon as possible. There is a wide range of alternate sites for mineral exploration in northern Saskatchewan equally or more promising than the dunes area. From a biophysical perspective there is nothing comparable to the dunes anywhere in Saskatchewan or continental Canada. Setting aside the dunes via ecological reserve or some other route (perhaps a wilderness park) would not represent a significant hindrance to the province's mineral industry. It would, however, represent an excellent addition to Saskatchewan's fledgling ecological reserve system or alternatively the park system.

Generai

A number of individuals contacted Council requesting information and assistance on a variety of problems.

Council was advised of littering problems at Esker and Ithingo Lake in northern Saskatchewan, apparently as a result of mineral exploration activity as well as commercial fishing operations. Enforcement of regulations in the north continues to be a problem. The permit system for authorization of mineral exploration requires approved disposal or reuse of empty fuel drums. The Litter Control Act (Saskatchewan Environment) is also applicable. DTRR and DNS conservation officers are authorized to issue tickets under the Act. However, there are relatively few prosecutions in the Northern Administration District (34 in 1979, 20 in the first seven months of 1980, 4 in 1978, and 1 in 1977) due primarily to a lack of field staff. The principal regulatory body in the north (Department of Northern Saskatchewan) does not appear to have assigned an especially high priority to this particular problem.

Council was contacted by the Saskatoon Community Health Unit for suggestions respecting areas of examination

for a study geared, in part, to identifying priority problem areas in the field of urban environmental health. Council suggested particular attention be given to the adequacy of procedures for testing and monitoring toxic chemicals. Council also noted garbage disposal sites, noise pollution (impacts on human health), sewage treatment facilities (adequacy of primary treatment), and urban zoning (standards for buffer zones between industrial and residential areas) as possible subjects for examination.

Council was provided with a wide-ranging critique of the Key Lake Board of Inquiry Report which questioned, in particular, the degree to which uranium mining would further the cause of development of a sustainable economic base in the north. It was also suggested to Council that the Board had been more than a little sanguine in its assessment of the project's environmental impact and that the inquiry process clearly had not functioned well for this particular project proposal. Lastly, it was suggested that the credibility of the public involvement process could be improved by providing "some public input to the appointment of chairpersons and the board members via an independent or semi-independent environmental agency (perhaps the Environmental Advisory Council)". With respect to the latter suggestion, from Council's perspective there would certainly be some merit in somehow distancing the process of board member selection from direct government appointments. How this could be accomplished remains an open question. There is also the more general underlying question of whether or not it is conceivable that any appointed body, established via direct government appointment or some other process, would ever be accepted as genuinely impartial and objective by all of the diverse organizations and interest groups in Saskatchewan.

Council received some observations on the Warman hearings in response to the 1979-80 EAC Annual Report. It

was pointed out that Council's suggestions respecting public input to the terms of reference for a given review process and more attention to the guidelines for preparation of impact statements were becoming standard practice for the federal Environmental Assessment Review Process. There was agreement that had this been done for the proposed refinery, the ensuing public review might have been improved. It was also pointed out that, although there is obvious merit to a two-stage approach to hearings (formal and informal), this will not necessarily eliminate criticism of public review processes. One interest group at Warman reportedly objected to the two-stage format on the grounds that the informal phase represented an insult to the intelligence of local residents. This objection notwithstanding, it remains Council's consensus that the two-stage approach is the most viable method available at this point in time.

Also in response to the 1979-80 EAC Annual Report, Council was criticized for not paying sufficient attention to land use issues. Council is represented on the Land Use Policy Development Public Advisory Committee (LUPDPAC) and has tended to focus its efforts with respect to land use policy development through this channel. Land use remains a priority item for Council, albeit a low profile one at this particular juncture.

Council received a petition from the Fort Qu'Appelle Naturalists Society directed to the Fishing Lakes Special Planning Area Commission calling for protection of marshes and wetlands in the Qu'Appelle Valley from the impacts of commercial development. The petition focussed on one particular proposal in the Rural Municipality of North Qu'Appelle, arguing that it would result in the loss of marshes and wetlands as a valuable fish spawning ground as well as bird nesting and migratory resting area. Council relayed the concern to the Department, requesting information respecting the extent to which areas recommended for designation as

wildlife management units by the Qu'Appelle Basin Study Board had been implemented, and specifically why the area in North Qu'Appelle addressed by the petition had not been so designated.

A Vancouver consultant provided Council with information on a monitoring technique used to measure and evaluate the effect of air pollutant emissions on forest growth via interpretation of growth rings. Council forwarded the information to the Department, noting that the majority of Saskatchewan Environment's standards and monitoring procedures are based on concentrations in mediums (air, water, soil) and again suggesting that more attention should be given to monitoring biological systems; that is, the actual impacts on life. Council was subsequently provided with a summary of biomonitoring techniques currently used by the Department. Although the utility of biomonitoring if fully appreciated by the Department, there continues to be the problem of resources; i.e. funding to enable more extensive collection of specimens and availability of suitable laboratory facilities.

In April 1981 a Council member took part in a panel discussion organized by the Meadow Lake community college on the subject of the proposed heavy oil project at Cold Lake. There was a general consensus among area residents that the Saskatchewan Government was exhibiting a somewhat diffident attitude towards the project's potential environmental impacts on Saskatchewan. In addition, it was felt that not enough was being done to assess the cumulative impacts of expanded tar sands and heavy oil development. Council relayed these concerns to the Department, and was subsequently provided with a summary of Departmental measures taken with respect to the Cold Lake project and heavy oil development in general. Some of the more notable ones include preliminary work on studies to assess the cumulative effects of heavy oil development in Saskatchewan and a joint study (Saskatchewan Environment, Alberta

Environment, Environment Canada) on regional scale transport of air pollutants in northern Saskatchewan and Alberta.

Council received a brief from the Back To The Farm Research Foundation directed to the Saskatchewan Safety Council (Farm Division) and the Minister for Saskatchewan Environment. The brief addressed issues attendant to the use of agricultural chemicals and encouraged particular attention to procedures for pre-testing and registration as well as a wide range of environmental and health-related impacts.

Liaison Activities

Sixth Joint Meeting of Federal-Provincial EACs

The sixth joint meeting was held in Banff, Alberta in June 1981. Terry Harley and Department Liaison Ken Fawcett represented Council at the meeting. Representatives from seven provinces and the Canadian EAC were in attendance. There were also observers from the provinces of Newfoundland and British Columbia.

The major topics dealt with at the meeting were security of the agricultural land base and incremental environmental disturbance. The meeting also featured a keynote address on the implications of the Global 2000 Report for Canada as well as a workshop session on the public's role in environmental decision making and an optional session on ecological reserves. A series of draft resolutions were formulated during the workshop sessions and are to be later transmitted for consideration by individual Councils. The resolutions are not binding on participating Councils but are instead intended to provide some general directions for setting priorities in individual jurisdictions.

Incremental environmental disturbance was defined as "those man made visible or invisible alterations to the

environment which, when accumulated over time and/or space, have greater effect than any increment per se." For example, air pollutant emissions from an individual plant or factory may be well within specified acceptable limits but nevertheless result in environmental damage due to their cumulative interaction with emissions from other existing plants. There may also be unanticipated impacts due to changes in the receiving environment as a result of previous emissions. As another example, draining individual sloughs or clearing small bluffs seem like relatively harmless exercises. However, the combined effect of these individual acts over time can be of major proportion. It is fairly widely recognized that wildlife habitat has been seriously eroded. However, it is difficult to paint an accurate picture of the present status of habitat precisely because it continues to be nibbled away at in relentless fashion. The "increment per se" (clearing of an individual bush) may be relatively minor, but "when accumulated over time and/or space" its effects are major. The concept of incremental environmental disturbance may therefore be particularly useful as a planning tool, both for researchers in gauging future impacts and for regulators in developing standards which are sensitive to long term needs.

The principal problems with public participation seem to be fairly uniform across the country. These include funding considerations, inadequate information/education programs, the limitations of project-by-project reviews, too much emphasis on short term (often electoral) considerations, and recurring time contraints which prohibit effective input. In terms of possible solutions, two of the top priorities were passage of effective freedom of information legislation and increased emphasis on and input to long term planning on environmental issues.

Depletion of organic matter, wind and water erosion, and salinization are just some of the major threats to the security of the agricultural land base. There was general consensus

that one priority was the need for an improved data base; specifically, an expansion and refinement of the Canada Land Inventory so that it includes additional agri-climatic information, productivity indices, and identification of suitability for particular crops. A related priority was the need for a significant expansion of agricultural research. One of the keynote speakers at the meeting stated that there are fewer researchers examining the effects of pesticides today than there were a decade ago, even though the actual and potential impacts of pesticides are matters of far greater concern today than in the past. Also, much more effort must be concentrated on developing viable alternatives to conventional agricultural methods.

One of the highlights of the meeting was the presentation on Global 2000: the Implications for Canada. The Global 2000 Report was prepared at the request of President Carter by the Council on Environmental Quality and the Department of State. Its broad objective was to study and project "probable changes in the world's population, natural resources and environment through to the end of the century." The report's findings and conclusions are stark. As a general overall conclusion, the report states that "if present trends continue, the world in 2000 will be more crowded, more polluted, less stable ecologically and more vulnerable to disruption than the world we live in now. Despite greater material output, the world's people will be poorer in many ways than they are today. For hundreds of millions of the desparately poor, the outlook for food and other necessities of life will be no better. For many it will be worse. Barring revolutionary advances in technology, life for most people on earth will be more precarious in 2000 than it is now."

Specific projections in the report include:

—an increase in world population from 4 billion in 1975 to 6.35 billion by 2000, with 90% of this growth occurring in the poorest countries;

—a 90% increase in world food production from 1970 to 2000, only a 4% increase in arable land, and a doubling of real food prices;
—an increase in severity of regional water shortages;
—a serious deterioration of agricultural soils;
—a disappearance of the world's forests at a rate of 18-20 million hectares per year;
—a possible alteration in world climate due to increased atmospheric concentrations of carbon dioxide and ozone-depleting chemicals;
—extinction of as many as 20% of all remaining plant and animal species.

Although Canada's place in this grim scenario appears, in relative terms, to be an extremely enviable one it is by no means secure and uncomplicated. Inevitably there will be growing pressure on Canadian resources; in particular, energy, water, forest, and agricultural resources. Also, given its dependency on exports Canada will be particularly vulnerable to global economic dislocations which are ever more likely to occur.

The presentation on the implications of the Global 2000 Report represented a highlight because of the useful data provided and, perhaps more importantly, because it helped place national and provincial issues in perspective. For example, in the time (one day) spent formulating, refining, and at times quibbling over resolutions at the sixth joint meeting 250,000 people were added to the global population. Effective problem solving begins with a priorization of what is genuinely important. In this respect the Global 2000 Report, with its cold unsweetened projections, tends to cast the common impediments to problem solving at all levels of government in Canada in a new and distinctly dubious light.

General

In August 1980 Gerry Macdonald attended a workshop on Environmental Education on Council's behalf. The workshop was sponsored by the Saskatchewan Outdoor and Environmental Education Association with support from the Saskatchewan Teachers Federation and Saskatchewan Environment. The purpose of the workshop was to allow participants to develop their skills and enhance their understanding of philosophies and methods of environmental education. There was general consensus at the workshop that particular attention should be given to integrating environmental education materials into other curriculum areas (e.g. social sciences, humanities, natural sciences). This would represent a relatively simple and immediate step towards improving environmental awareness among students.

In October 1980 Council sent three delegates (Harley, Macdonald, Secoy) to a two day conference on contemporary energy issues jointly sponsored by the Government of Saskatchewan and the city of Saskatoon. The conference featured presentations on the international, national, and provincial energy situations, the status of conventional and renewable sources, conservation, the impact of technological change, and the overall outlook for Saskatchewan. Council also organized a display on the general theme of environmental impacts of energy use which was exhibited during a four day energy exposition held in conjunction with the Energy Show.

Also in October, Council was invited to send a delegate to a public participation seminar held by the Saskatchewan Power Corporation to examine and discuss means whereby the public could more effectively participate in the planning and development of future SPC projects. Garry Shury represented Council at the seminar. The single most significant point to emerge from the seminar was that SPC seems prepared to make a genuine effort towards promoting

more effective participation by involving the public at an earlier stage of project proposal review. It was conceded by SPC spokesmen at the seminar that the historical management attitude within the corporation towards public participation would have to continue to change and improve if tangible progress was to be made.

In December 1980 John Comer chaired a public information meeting held to receive comments and provide information on suggested changes to the proposed hydro-electric project at Nipawin. The meeting was jointly organized by Saskatchewan Environment and the project proponent (SPC). The initial proposal was reviewed by a board of inquiry and subsequently given approval in principle in 1978. The people of Nipawin are by and large in favour of the proposal. The main environmental concern raised at the meeting was the impact of the dam reservoir on the Saskatchewan River Valley; specifically, the impact on wildlife habitat.

In January 1981 Council was invited to send a representative to a one day seminar organized to review preliminary results of a study on transboundary movement of air pollutants affecting northeastern Alberta and northern Saskatchewan. Ted Hammer represented Council at the seminar. The study was jointly commissioned by Environment Canada, Saskatchewan Environment, and Alberta Environment to determine the nature and extent of the transboundary air pollution problem. On the basis of the preliminary study results, Council's representative reported a need for more baseline data on soils, vegetation, and water within the study area and more emphasis on controlling stack emissions. The potential impacts on lichens and on PreCambrian Shield soils also warrant a higher study priority.

Also in January, Council was advised by the Minister that a public advisory committee was to be established under the new Drainage Control Act to provide advice on drainage

and flood control matters. Council was invited to name a representative to the new committee. The Drainage Control Public Advisory Committee was formally established in April 1981. Ted Hammer represents Council on the Committee. The first meeting of the Committee was held in June. Northeast and southeast Saskatchewan were singled out as areas where regional watershed commissions, as recommended in the 1979 Drainage and Flood Control Study, should be established on a trial basis.

Council continued its representation on the Land Use Policy Development Public Advisory Committee (LUPDPAC) and the Ecologics and Land Resources Co-ordinating Group. The final LUPDPAC report is now scheduled for completion in February 1981. Council also maintained its formal liaison with the Saskatchewan Outdoor and Environmental Education Association and the Saskatoon Environmental Advisory Council.

Copies of Council's 1979-80 Annual Report as well as the Acid Rain Report were distributed to a wide variety of organizations, interest groups, and individuals. Copies can be obtained by contacting the Council office in Regina. Write to:

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